

SGCN and Habitat Stressors

Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Description: Harmful plants, animals, pathogens and other microbes not originally found within the ecosystem(s) in question and directly or indirectly introduced and spread into it by human activities

Species Associated With This Stressor: **Total SGCN: 1: 25 2: 39 3:**

Class	<i>Actinopterygii</i> (Ray-finned Fishes)	SGCN Category
Species: <i>Alosa pseudoharengus</i> (Alewife)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Anguilla rostrata</i> (American Eel)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Parasitic nematode infection of swim bladder that affects swimming ability and digestion, hence makes infected individual vulnerable to predation and starvation. Infection rates are high once nematode infests a new area. Parasite is native to southeast Asia. Documented in mid-Atlantic states to NY. Population risks largely unknown.		
Species: <i>Alosa sapidissima</i> (American Shad)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Salvelinus alpinus oquassa</i> (Arctic Charr)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Probably the number one threat to char in Maine. Charr compete poorly with certain other fishes and illegal fish introductions is a serious concern.		
Species: <i>Salmo salar</i> (Atlantic Salmon)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Invasive species can have detrimental effects on native species. The ability, likelihood, and certainty to mitigate invasive species is case dependent. In some cases, we can stop the intentional introduction of non-native fish species. In the case of established invasive species, often we can only mitigate the impact. Invasive fish species hamper our efforts to increase connectivity since establishing passage at migration barriers (i.e. dams) can facilitate the spread of invasive.		
Species: <i>Acipenser oxyrinchus</i> (Atlantic Sturgeon)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Alosa aestivalis</i> (Blueback Herring)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Notropis bifrenatus</i> (Bridle Shiner)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: A poor competitor with large, predatory invasive fishes (PIK, black basses, etc). Once predatory invasive Sp established, it is very difficult to eradicate from typical BDS habitats. Also, invasive plants may detrimentally affect preferred vegetation for BDS.		
Species: <i>Coregonus clupeaformis</i> (Lake Whitefish)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Poor competitors with large predatory fishes. MUS, PIK, Black basses primarily		

SGCN and Habitat Stressors

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Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Class	<i>Actinopterygii</i> (Ray-finned Fishes)	SGCN Category
Species: <i>Osmerus mordax</i> (Rainbow Smelt)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Esox americanus americanus</i> (Redfin Pickerel)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: RPK are poor competitors with large predatory fishes. Carp degrade vegetation and physical habitat of at least one RPK population.		
Species: <i>Prosopium cylindraceum</i> (Round Whitefish)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Poor competitors with large predatory fishes. MUS, PIK and black basses primarily.		
Species: <i>Acipenser brevirostrum</i> (Shortnose Sturgeon)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Morone saxatilis</i> (Striped Bass)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Effect of invasives largely unknown but might have effect on specific populations (Kennebec). The ability, likelihood, and certainty to mitigate invasives is low.		
Species: <i>Etheostoma fusiforme</i> (Swamp Darter)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Poor competitors with large predatory fishes.		
Class	<i>Anthozoa</i> (Corals, Sea Pens, Sea Fans, Sea Anemones)	SGCN Category
Species: <i>Gersemia rubiformis</i> (Sea Strawberry)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Asteroidea</i> (Sea Stars)	SGCN Category
Species: <i>Asterias rubens</i> (Common Sea Star)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of sea star prey, habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Crossaster papposus</i> (Common Sun Star)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of sea star prey, habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		

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Class	<i>Asteroidea</i> (Sea Stars)	SGCN Category
Species: <i>Asterias forbesi</i> (Forbes's Starfish)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of sea star prey, habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Solaster endeca</i> (Purple Sunstar)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of sea star prey, habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Stephanasterias albula</i> (White Sea Star)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of sea star prey, habitat, and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Aves</i> (Birds)	SGCN Category
Species: <i>Sterna paradisaea</i> (Arctic Tern)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Invasive plants impacting nesting habitat		
Species: <i>Chlidonias niger</i> (Black Tern)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Purple loosestrife and <i>Phragmites</i> spp. can displace preferred native emergent vegetation used for nesting.		
Species: <i>Gallinula galeata</i> (Common Gallinule)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Purple loosestrife and <i>Phragmites</i> spp. Can displace preferred native emergent vegetation used for nesting.		
Species: <i>Sterna hirundo</i> (Common Tern)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Invasive plants impacting nesting habitat		
Species: <i>Ixobrychus exilis</i> (Least Bittern)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Purple loosestrife and <i>Phragmites</i> spp. can displace preferred native emergent vegetation used for nesting.		
Species: <i>Sternula antillarum</i> (Least Tern)		1
Severity: Moderate Severity	Actionability: Highly actionable	
Notes: Predation issues from non native predators such as red fox can be reversible with intensive predator control.		
Species: <i>Ammodramus nelsoni</i> (Nelson's Sparrow)		2
Severity: Moderate Severity	Actionability: Highly actionable	
Notes: Green Crab		

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Class	Aves (Birds)	SGCN Category
	Species: <i>Charadrius melodus</i> (Piping Plover) Severity: Moderate Severity Actionability: Highly actionable Notes: Includes non native predators such as red fox. Intensive predator control can reverse impacts.	1
	Species: <i>Sterna dougallii</i> (Roseate Tern) Severity: Moderate Severity Actionability: Moderately actionable Notes: Invasive plants impacting nesting habitat	1
	Species: <i>Ammodramus caudacutus</i> (Saltmarsh Sparrow) Severity: Moderate Severity Actionability: Highly actionable Notes: Green Crab, Phragmites, periwinkles?	1
Class	Bivalvia (Marine And Freshwater Molluscs)	SGCN Category
	Species: <i>Zirfaea crispata</i> (Atlantic Great Piddock) Severity: Moderate Severity Actionability: Actionable with difficulty Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.	2
	Species: <i>Alasmidonta varicosa</i> (Brook Floater) Severity: Moderate Severity Actionability: Moderately actionable Notes: Zebra mussel and Asian clam are potential threats - not yet documented in Maine but are present in other New England states; prevention/outreach programs could be increased but once established would likely be irreversible; invasive aquatic plants can alter/degrade habitat	1
	Species: <i>Leptodea ochracea</i> (Tidewater Mucket) Severity: Moderate Severity Actionability: Moderately actionable Notes: Zebra mussel and Asian clam are potential threats - not yet documented in Maine but are present in other New England states; prevention/outreach programs could be increased but once established would likely be irreversible; invasive aquatic plants can alter/degrade habitat	1
	Species: <i>Lampsilis cariosa</i> (Yellow Lampmussel) Severity: Moderate Severity Actionability: Moderately actionable Notes: Zebra mussel and Asian clam are potential threats - not yet documented in Maine but are present in other New England states; prevention/outreach programs could be increased but once established would likely be irreversible; invasive aquatic plants can alter/degrade habitat	1
Class	Echinoidea (Sea Urchins)	SGCN Category
	Species: <i>Strongylocentrotus droebachiensis</i> (Green Sea Urchin) Severity: Moderate Severity Actionability: Actionable with difficulty Notes: Invasive algae (<i>Codium fragile</i>) and tunicates (<i>Didemnum</i> sp) have colonized sea urchin habitat in some regions. This threat is poorly understood (low certainty), but the threat and its effects are likely to occur in some areas (patchy spatially).	2
Class	Gastropoda (Aquatic And Terrestrial Snails)	SGCN Category
	Species: <i>Arrhoges occidentalis</i> (American Pelican Foot) Severity: Moderate Severity Actionability: Actionable with difficulty Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.	2

SGCN and Habitat Stressors

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Class	<i>Gastropoda</i> (Aquatic And Terrestrial Snails)	SGCN Category
Species: <i>Stagnicola mighelsi</i> (Bigmouth Pondsnaill)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Introduction of non-native snails or aquatic vegetation may have harmful effects but not well understood at present		
Species: <i>Boreotrophon clathratus</i> (Clathrate Trophon)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Colus pygmaeus</i> (Colus Snail)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Boreotrophon truncatus</i> (Murex)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Ptychatractus ligatus</i> (Spindle Shell)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Holothuroidea</i> (Sea Cucumbers)	SGCN Category
Species: <i>Cucumaria frondosa</i> (Orange-footed Sea Cucumber)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Psolus fabricii</i> (Psolus)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Psolus phantapus</i> (Psolus)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Species: <i>Thyonidium drummondii</i> (Sea Cucumber)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Insecta</i> (Insects)	SGCN Category

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Class	<i>Insecta</i> (Insects)	SGCN Category
	Species: <i>Bombus pensylvanicus</i> (American Bumble Bee) Severity: Severe Notes: Introduced pathogens, parasites/diseases from imported commercial Bombus colonies; past impacts are likely irreversible, but future impacts potentially could be minimized/prevented; impacts from invasive plants? Actionability: Actionable with difficulty	2
	Species: <i>Bombus ashtoni</i> (Ashton's Cuckoo Bumble Bee) Severity: Severe Notes: Introduced pathogens, parasites/diseases from imported commercial Bombus colonies; past impacts are likely irreversible, but future impacts potentially could be minimized/prevented; impacts from invasive plants? Actionability: Actionable with difficulty	2
	Species: <i>Erora laeta</i> (Early Hairstreak) Severity: Moderate Severity Notes: Beech bark disease (a scale insect and fungal infection) Actionability: Actionable with difficulty	2
	Species: <i>Bombus insularis</i> (Indiscriminate Cuckoo Bumble Bee) Severity: Severe Notes: Introduced pathogens, parasites/diseases from imported commercial Bombus colonies; past impacts are likely irreversible, but future impacts potentially could be minimized/prevented; impacts from invasive plants? Actionability: Actionable with difficulty	2
	Species: <i>Citheronia sepulcralis</i> (Pine Devil) Severity: Severe Notes: Extirpated from most of Northeast in mid 20th century primarily from DDT and Compsilura introductions Actionability: Actionable with difficulty	2
	Species: <i>Bombus affinis</i> (Rusty-patched Bumble Bee) Severity: Severe Notes: Introduced pathogens, parasites/diseases from imported commercial Bombus colonies; past impacts are likely irreversible, but future impacts potentially could be minimized/prevented; impacts from invasive plants? Actionability: Actionable with difficulty	1
Class	<i>Malacostraca</i> (Crustaceans)	SGCN Category
	Species: <i>Pandalus borealis</i> (Northern Shrimp) Severity: Moderate Severity Notes: Invasives could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low. Actionability: Actionable with difficulty	1
	Species: <i>Lebbeus polaris</i> (Polar Lebbeid Shrimp) Severity: Moderate Severity Notes: Invasives could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low. Actionability: Actionable with difficulty	2
	Species: <i>Lebbeus groenlandicus</i> (Spiny Lebbeid Shrimp) Severity: Moderate Severity Notes: Invasives could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low. Actionability: Actionable with difficulty	2
Class	<i>Mammalia</i> (Mammals)	SGCN Category

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Class	<i>Mammalia</i> (Mammals)	SGCN Category
Species: <i>Myotis leibii</i> (Eastern Small-footed Myotis)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: WNS will remain active in the soil for a long time; however, progress is being made in coming up with ways to disinfect hibernacula		
Species: <i>Myotis lucifugus</i> (Little Brown Bat)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: WNS may extirpate the LBB in the east; there is some evidence that a disinfectant may work in hibernacula; there is also some indication that some LBB may not be as susceptible to WNS as other individuals.		
Species: <i>Myotis septentrionalis</i> (Northern Long-eared Myotis)		1
Severity: Severe	Actionability: Actionable with difficulty	
Notes: White-nose syndrome (WNS) is a fungal disease that has caused the preceptious decline in most cave hibernating bat species in the eastern half of the US.		
Species: <i>Perimyotis subflavus</i> (Tri-colored Bat)		2
Severity: Severe	Actionability: Actionable with difficulty	
Notes: Losses to white nose syndrome have occurred elsewhere but numbers of tri-colopred bats in Maine hibernacula are so low that the problem is not well documented here., but any mortalities are a concern given the marginal status of this species.		
Class	<i>Merostomata</i> (Horseshoe Crabs And Sea Scorpions)	SGCN Category
Species: <i>Limulus polyphemus</i> (Horseshoe Crab)		1
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasive non-native and alien diseases could have effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Ophiuroidea</i> (Brittle Stars)	SGCN Category
Species: <i>Gorgonocephalus arcticus</i> (Northern Basket Starfish)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		
Class	<i>Reptilia</i> (Reptiles)	SGCN Category
Species: <i>Emydoidea blandingii</i> (Blanding's Turtle)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Invasive wetland plants that dominate or form monocultures		
Species: <i>Clemmys guttata</i> (Spotted Turtle)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Invasive wetland plants that dominate or form monocultures		
Class	<i>Rhynchonellata</i> (Brachiopods)	SGCN Category
Species: <i>Terebratulina septentrionalis</i> (Lamp Shell)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Invasives such as encrusting colonial tunicates (<i>Didemnum vexillum</i>) could decrease availability of habitat and have other effects largely unknown at this time. Likelihood is high and large scale (throughout the region), so actionability is low.		

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Habitats Associated With This Stressor:

Macrogroup Central Hardwood Swamp

Habitat System Name: North-Central Interior Wet Flatwoods

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Macrogroup Central Oak-Pine

Habitat System Name: Central Appalachian Dry Oak-Pine Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Habitat System Name: Central Appalachian Pine-Oak Rocky Woodland

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Habitat System Name: North Atlantic Coastal Plain Hardwood Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Habitat System Name: North Atlantic Coastal Plain Maritime Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Habitat System Name: Northeastern Interior Pine Barrens

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.)

Macrogroup Cliff and Talus

Habitat System Name: Laurentian-Acadian Acidic Cliff and Talus

Notes: white nosed bat syndrome in hibernacula

Habitat System Name: Laurentian-Acadian Calcareous Cliff and Talus

Notes: white nosed bat syndrome in hibernacula

Habitat System Name: North-Central Appalachian Acidic Cliff and Talus

Notes: white nosed bat syndrome in hibernacula

Habitat System Name: North-Central Appalachian Circumneutral Cliff and Talus

Notes: white nosed bat syndrome in hibernacula

Macrogroup Coastal Grassland & Shrubland

Habitat System Name: Northern Atlantic Coastal Plain Dune and Maritime Grassland

Notes: Rosa rugosa, Lepidium latifolium, cats, dogs etc.

Habitat System Name: Northern Atlantic Coastal Plain Sandy Beach

Notes: Rosa rugosa, Lepidium latifolium, cats, dogs etc.

Macrogroup Coastal Plain Peat Swamp

Habitat System Name: North Atlantic Coastal Plain Basin Peat Swamp

Notes: Invasive plants not currently a major problem but could be in the future

Macrogroup Emergent Marsh

Habitat System Name: Laurentian-Acadian Freshwater Marsh

Notes: Purple loosestrife, others. Problem is larger in southern Maine

Macrogroup Glade, Barren and Savanna

Habitat System Name: Central Appalachian Alkaline Glade and Woodland

Notes: Invasive upland plants (buckthorn, honeysuckle)

Macrogroup Intertidal Bedrock

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Macrogroup Intertidal Bedrock

Habitat System Name: High Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Habitat System Name: Low-Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Habitat System Name: Mid-Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Macrogroup Intertidal Gravel Shore

Habitat System Name: High Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Habitat System Name: Lower Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Habitat System Name: Mid-Intertidal

Notes: e.g. Green crab appears to be a voracious predator in this habitat; encrusting invasive tunicates are also likely common and disruptive to the natural community

Macrogroup Intertidal Mollusc Reefs

Habitat System Name: Gastropod Reef

Notes: e.g. Green crabs

Habitat System Name: Mussel Reef

Notes: e.g. Green crabs

Habitat System Name: Oyster Reef

Notes: e.g. Green crabs

Macrogroup Intertidal Mudflat

Habitat System Name: Freshwater Tidal Marsh

Notes: E.g. Green crabs appear to be a voracious predator that preys on some native species in the mudflats; soft shell clam cancer

Habitat System Name: Non-Vascular Mudflat

Notes: E.g. Green crabs appear to be a voracious predator that preys on some native species in the mudflats; soft shell clam cancer

Habitat System Name: Submerged Aquatic Vegetation

Notes: E.g. Green crabs appear to be a voracious predator that preys on some native species in the mudflats; soft shell clam cancer

Macrogroup Intertidal Sandy Shore

Habitat System Name: Sand Beach

Notes: e.g. Heterosiphonia japonica is an invasive alga that lets off noxious fumes when it dries and can lead to the closing of beaches; an emerging issue in Maine

Habitat System Name: Sand Flat

Notes: e.g. Heterosiphonia japonica is an invasive alga that lets off noxious fumes when it dries and can lead to the closing of beaches; an emerging issue in Maine

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Macrogroup Intertidal Sandy Shore

Habitat System Name: Submerged Aquatic Vegetation

Notes: e.g. *Heterosiphonia japonica* is an invasive alga that lets off noxious fumes when it dries and can lead to the closing of beaches; an emerging issue in Maine

Macrogroup Intertidal Tidal Marsh (peat-forming)

Habitat System Name: Acadian Coastal Salt Marsh

Notes: Invasive plants (*Phragmites*), green crabs, non native predators (pets)

Habitat System Name: Coastal Plain Tidal Marsh

Notes: Invasive plants (*Phragmites*), green crabs, non native predators (pets)

Macrogroup Intertidal Water Column

Habitat System Name: Confined Channel

Notes: Invasive species populations can disrupt natural community and lead to ecosystem changes

Habitat System Name: Embayment

Notes: Invasive species populations can disrupt natural community and lead to ecosystem changes

Habitat System Name: Exposed Shore

Notes: Invasive species populations can disrupt natural community and lead to ecosystem changes

Macrogroup Lakes and Ponds

Habitat System Name: Eutrophic

Notes: Non-native fish introductions

Habitat System Name: Mesotrophic or Intermediate

Notes: Non-native fish introductions

Habitat System Name: Oligotrophic

Notes: Non-native fish introductions

Habitat System Name: Vernal Pool

Notes: Non-native plants, primarily in southern Maine

Macrogroup Northeastern Floodplain Forest

Habitat System Name: Laurentian-Acadian Floodplain Systems

Notes: Many invasive plants are a problem in this forest type; problem is worse in southern ME

Macrogroup Northern Hardwood & Conifer

Habitat System Name: Appalachian (Hemlock)-Northern Hardwood Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.); invasive plants generally worse in southern ME; spraying Bt may negatively impact some native Lepidoptera in spruce-fir forests

Habitat System Name: Laurentian-Acadian Northern Hardwoods Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.); invasive plants generally worse in southern ME; spraying Bt may negatively impact some native Lepidoptera in spruce-fir forests

Habitat System Name: Laurentian-Acadian Pine-Hemlock-Hardwood Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.); invasive plants generally worse in southern ME; spraying Bt may negatively impact some native Lepidoptera in spruce-fir forests

Habitat System Name: Laurentian-Acadian Red Oak-Northern Hardwood Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.); invasive plants generally worse in southern ME; spraying Bt may negatively impact some native Lepidoptera in spruce-fir forests

SGCN and Habitat Stressors

Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Macrogroup Northern Hardwood & Conifer

Habitat System Name: Northeastern Coastal and Interior Pine-Oak Forest

Notes: Invasive plants & insects (gypsy moth, EAB, Asian Longhorn beetle, etc.); invasive plants generally worse in southern ME; spraying Bt may negatively impact some native Lepidoptera in spruce-fir forests

Macrogroup Northern Swamp

Habitat System Name: Acadian-Appalachian Conifer Seepage Forest

Notes: If introduced the Emerald Ash Borer poses a significant risk to Brown Ash in this type

Habitat System Name: Laurentian-Acadian Alkaline Conifer-Hardwood Swamp

Notes: If introduced the Emerald Ash Borer poses a significant risk to Brown Ash in this type

Habitat System Name: North-Central Appalachian Acidic Swamp

Notes: If introduced the Emerald Ash Borer poses a significant risk to Brown Ash in this type

Habitat System Name: North-Central Interior and Appalachian Rich Swamp

Notes: If introduced the Emerald Ash Borer poses a significant risk to Brown Ash in this type

Habitat System Name: Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp

Notes: If introduced the Emerald Ash Borer poses a significant risk to Brown Ash in this type

Macrogroup Rivers and Streams

Habitat System Name: Large River

Notes: Non-native fish introductions

Habitat System Name: Medium River

Notes: Non-native fish introductions

Habitat System Name: Small River

Notes: Non-native fish introductions

Habitat System Name: Small River

Notes: Non-native fish introductions

Macrogroup Rocky Coast

Habitat System Name: Acadian-North Atlantic Rocky Coast

Notes: Invasive plants, green crabs (see MARINE habitats)

Habitat System Name: North Atlantic Cobble Shore

Notes: Invasive plants, green crabs (see MARINE habitats)

Macrogroup Subtidal Bedrock Bottom

Habitat System Name: Bedrock

Notes: E.g. green crabs, lobster shell disease

Habitat System Name: Erect Epifauna

Notes: E.g. green crabs, lobster shell disease

Habitat System Name: Kelp Bed

Notes: E.g. green crabs, lobster shell disease

Macrogroup Subtidal Coarse Gravel Bottom

Habitat System Name: Coarse Gravel

Notes: E.g. green crabs, lobster shell disease

Habitat System Name: Erect Epifauna

Notes: E.g. green crabs, lobster shell disease

SGCN and Habitat Stressors

Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Macrogroup Subtidal Coarse Gravel Bottom

Habitat System Name: Kelp Bed

Notes: E.g. green crabs, lobster shell disease

Macrogroup Subtidal Mollusc Reefs

Habitat System Name: Gastropod Reef

Notes: Invasive green crabs and other invasive species

Habitat System Name: Mussel Reef

Notes: Invasive green crabs and other invasive species

Habitat System Name: Oyster Reef

Notes: Invasive green crabs and other invasive species

Macrogroup Subtidal Mud Bottom

Habitat System Name: Submerged Aquatic Vegetation

Habitat System Name: Unvegetated

Macrogroup Subtidal Pelagic (Water Column)

Habitat System Name: Confined Channel

Notes: Tropical species are appearing in Gulf of Maine waters, with unknown impacts

Habitat System Name: Nearshore

Notes: Tropical species are appearing in Gulf of Maine waters, with unknown impacts

Habitat System Name: Offshore

Notes: Tropical species are appearing in Gulf of Maine waters, with unknown impacts

Habitat System Name: Upwelling Zones

Notes: Tropical species are appearing in Gulf of Maine waters, with unknown impacts

Macrogroup Subtidal Sand Bottom

Habitat System Name: Submerged Aquatic Vegetation

Habitat System Name: Unvegetated

Macrogroup Wet Meadow-Shrub Marsh

Habitat System Name: Introduced Wetland and Riparian Vegetation

Notes: Stressor is much lower in northern Maine

Habitat System Name: Laurentian-Acadian Wet Meadow-Shrub Swamp

Notes: Stressor is much lower in northern Maine

SGCN and Habitat Stressors

Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

Level 2 Threat: Invasive Non-native-Alien Species-Diseases

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.